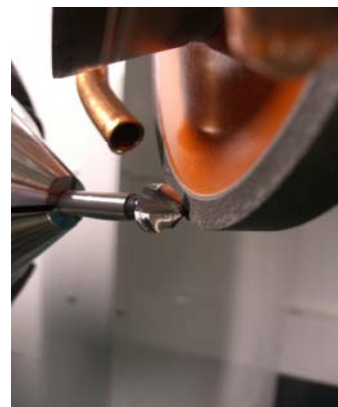
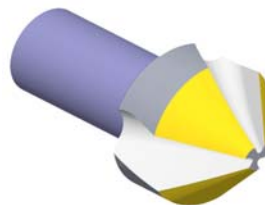


Countersink Ø20.5 Z3

A6-310

The countersink is ground in one setup. Included in the flute operation is a radius walkout tangential to the cutting face. The relief grinding of the 90° taper is executed in partial infeders with the face of a 12A2 cupwheel. Optionally, the periphery of a 1A1 or 1V1 wheel can be selected. If necessary an additional polishing operation for the cutting face can be added.



1. Cycletime for Production

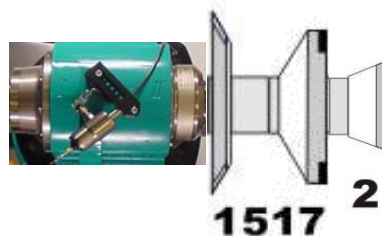
Tool specifications					
Diameter 20.5 mm, Z 3, Angle on O.D. 15°					
Material HSS					
Operations	Probe	Flute 1	90° Relief	O.D.	End
Feed [mm/Min]	2000	70	150	150	200
Power [kW]		3	1	1	1
Cutting feed [m/s]		28	32	32	32
Used wheels		15	17	17	2
Grinding time [s]	10	161	44	29	16
Total cycle time	4 Min 19				

The mentioned cycle times are indicative. The material to be ground, different grinding wheels or other coolants can influence the cycle times considerably.



2. Used Grinding Wheels

15 Ø125 1V1 B126
17 Ø125 12A2 B126
2 Ø75 11V9 B126



3. Machine and Software Requirements

Machines: 5 axes CNC grinders : GEMINI DMR, NORMA CFG
Control: Fanuc 31i
Coolant: Synthetic Oil, pressure 6 - 7 bar
Software: Quinto 5

responsible engineer: OP,17.6.08

www.schneeberger.ch

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TECHNOLOGY
FOR TOOLING